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AUTHOR Barnes, Sheila K.
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ABSTRACT

This paper describes the elements of outcome-based education (OBE) and identifies the corresponding research base for each. The eight steps of OBE, evolved from the early effective-schools research and mastery-learning concepts, include: (1) define students' future environments; (2) derive outcomes; (3) design student demonstrations of learner outcomes; (4) develop curriculum materials; (5) deliver the instruction; (6) demonstrate outcomes; (7) document student performance; and (8) determine whether outcomes have been mastered. Ways in which OBE is applicable to special education are discussed. Conclusions are that the premises and principles of OBE are shared by special education, and that the implementation of OBE facilitates the placement of students with disabilities into the least restrictive environment. One table is included. (Contains 78 references.) (LMI)

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CREATING THE QUALITY SCHOOL FOR ALL STUDENTS BY IMPLEMENTING OUTCOME BASED EDUCATION

SHEILA K. BARNES, PH.D.
PROFESSIONAL EDUCATION
SOUTHEASTERN OKLAHOMA STATE UNIVERSITY

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ABSTRACT: Despite years of attempting to create quality schools, dissatisfaction with public education endures. It seems obvious that reform is warranted. Finn (1991) emphasizes that reform in education requires a shift from the old paradigm, which focuses on inputs, to a new paradigm, which focuses on outcomes. Outcome based education (OBE) is a reform movement that entails this paradigm shift and incorporates the best practices from current education research. This paper presents the elements of OBE and identify the corresponding research base for each. In addition, applications to children and youth with disabilities will be examined.

Rationale For Outcome Based Education

Dissatisfaction with public education endures despite decades of attempting to create quality schools. In 1966, Coleman and his colleagues reported that family variables accounted for 80% of the variance in student achievement scores, while school factors were unrelated to school success (Coleman, Campbell, Wood, Weinfeld, & York,1966). In response to Coleman's conclusions that schools made no difference in student success, cries for reform were heard nation-wide. As a result of this public outcry, a plethora of effective school research surfaced in the educational literature. This dissatisfaction with public education has not dissipated since the rash of research following Coleman's findings. As with these early reform movements, the major impetus for outcome based education is dissatisfaction with the results of educational practices. According to King and Evans (1991), all agree that public education must improve. Proponents believe implementation

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of OBE will result in long-needed changes in education (O'Neil, 1992). Finn (1990) further suggests that these changes in education are possible if educators shift from the old paradigm of education which focused on inputs, to a new paradigm which focuses on outcomes. Table 1 provides a comparison of the traditional based education paradigm and the outcome based education paradigm. "Under the new definition, now struggling for acceptance, education is the result achieved, the learning that takes root when the process has been effective" (Finn, 1990, p. 586).

Insert Table 1 about here

Eight Steps of OBE and Corresponding Research Base

Outcome based education is not new. Outcome based education evolved directly from the early effective schools research and mastery learning concepts, therefore, each component of OBE corresponds to research in one of these two areas. For example, many elements of OBE can be traced as far back as the 1920s when researchers defined mastery in terms of tests on objectives (Morrison, 1926; Washburne, 1922). Through all the decades following, the importance of educational objectives continued to be stressed (Bloom, 1984; Gagne, 1974; Glasser, 1963; Gronlund, 1970; Johnson, 1967; Jones & Spady, 1985). By the late 1960s educational researchers had developed models of education based on the concept of mastery learning (Block, 1971; Block, Efthim, & Burns, 1989; Bloom, 1984; Carroll, 1963; Gusky & Gates, 1986). These mastery learning models laid the foundation for the competency-based model

developed by Spady (1977), which evolved into outcome based education.

OBE developed as an attempt to clarify the concepts of mastery learning and competency based education yet many educators are just as confused about what OBE is and how to implement it as they were about the concepts OBE was supposed to clarify (Murphy, 1984). Understanding OBE requires a construct of the integrated structure, or gestalt. By definition, a gestalt is a construct which is more than the sum of the elements. A gestalt of OBE therefore, is more than the sum of the elements in OBE. This gestalt can be understood by developing a visual or mental image of the OBE. One such mental image is a staircase with eight steps of implementation. These steps are the eight "D's" of OBE. These eight "D's" are: 1) Define, 2) Derive, 3) Design, 4) Develop, 5) Deliver, 6) Demonstrate, 7) Document and 8) Determine. All components or elements of OBE described in the literature fall within one of these eight steps.

Define

The first step is "Define". The students' future environments must be defined in this step. Spady (1992) directs educators to examine the conditions students are likely to face in the future as they carry out adult life-role responsibilities. This has been referred to as an ecological survey in special education literature (Snell, 1987).

Derive

In the second step, outcomes are derived from the future conditions described above. Although outcomes have been identified

in several ways, depending on the grade level, program, or ability level of the students, there are five commonly recognized levels of learner outcomes. These include exit outcomes, program outcomes, course outcomes, unit outcomes, and lesson outcomes. At each level of outcomes, the source of input for selection will vary. Exit outcomes express global, broad, community concerns. The "community" may be the local school board or local community, the state, the country, or the universe. These outcomes usually reflect a school district's philosophy about learning and about learners. Program and course outcomes may be defined by the state department of education, or may be selected at the local level. Unit outcomes and lesson outcomes are often defined by building teams or individual teachers. Unit outcomes may represent a few weeks of instruction, while lesson outcomes may represent one or more days of instruction or may have no time boundaries.

Design

The third step in OBE is the design of student demonstrations of learner outcomes. Based on the outcomes you have derived from real-world, future environments, assessment items or tasks that are "parallel to and measure the learner's ability to achieve what you described in the objectives" are designed (Dick and Carey, 1978). Placing this step before the development of the curriculum or delivery of instruction is not new. This has been a component of other models, such as the systematic instruction model, which has been around for two decades (Dick and Carey, 1978). Demonstrations may include criterion-referenced (outcome-based) assessment tests (Murphy, 1984). Some educators narrowly restrict student

demonstrations to traditional paper-pencil tests (Barnes, 1992). OBE encourages the use of a variety of real-life, authentic demonstrations. Portfolios of work are an ideal alternative to traditional paper-pencil tests. Use of norm-referenced tests is highly discouraged by a number of authors.

Develop

The fourth step in OBE is to develop curriculum materials. It is important to note that the curriculum materials were not selected earlier. The reason for this is key in OBE. In OBE, the curriculum does not determine the outcomes to be taught, nor how mastery of these outcomes is to be assessed. Curriculum is aligned to exit outcomes after student demonstrations have been designated and aligned to exit outcomes. Curriculum alignment means that the curriculum is consistent with all outcomes, from exit outcomes to lesson outcomes. The curriculum should also be consistent with the student demonstrations of those outcomes (Barnes, 1992). Developing the curriculum is a challenging and frustrating task, yet is also one of the most rewarding and exciting tasks for the creative teacher. No longer do textbook companies dictate curriculum. This freedom is one of the attractions of outcome based education (King and Evans, 1991). According to King and Evans, schools have the "freedom to effect exit outcomes in any appropriate way" (p. 74).

Deliver

The fifth step in OBE is to deliver the instruction. OBE is certainly not the only model of education that addresses delivery of instruction, nor does the selection of well-defined outcomes of

significance guarantee the use of effective delivery of instruction, yet every model of OBE stresses the uses of effective delivery of instruction. Under the model for implementing OBE proposed by this author, the use of effective teaching strategies identified in the literature is an integral component of delivery of instruction. Delivery of instruction consists of a systematic process for providing instruction to maximize learner success.

Research has clearly established a knowledge base for understanding how to establish effective schools and deliver effective instruction. Effective schools research has identified correlates to effective schooling and has experimentally manipulated these correlates to determine whether implementation of these practices made statistically significant differences. Mackenzie (1983) noted that the common correlates of effective schools identified by researchers were strikingly similar. The correlates included high expectations for all students, a clear focus on acquisition of basic skills, cooperative learning among students, and staff accountability for student success (Brookover, 1981; Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Brookover, Beamer, Efthim, Hathaway, Lezotte, Miller, Passalacqua, & Tornatsky, 1982; Brookover & Lezotte, 1979; Lezotte, Edmonds, & Ratner, 1974; Walberg, 1984, 1985; Weber, 1971). Brookover and Lezotte (1979) also found that schools which were showing consistent student improvement had teachers who were dissatisfied with existing conditions in the schools and tended not to place students in compensatory, remedial programs. Purkey and Smith (1983) found that collaborative planning and good collegial

relationships among teachers, administrators, and the community, in addition to establishment of clear goals and high expectations were variables responsible for an atmosphere that increases student achievement.

Research examining effective teaching is similar to the effective schooling research, however, the findings are interpreted from a different perspective (Davis & Thomas, 1989). Effective teachers spend class time engaged in activities related to the identified outcomes (Berliner, 1984, 1985; Stallings, Cory, Fairweather, & Needels, 1978). Effective teachers also have high expectations for all students, organize and structure lessons to focus on objectives, and orient students to these lesson objectives (Alloway, 1984; Berliner, 1985; Brophy & Good, 1974; Dweck & Elliot, 1983; Edmonds, 1982; Good & Weinstein, 1986; Hunter, 1984; Rosenshine, 1986). This model of OBE encourages teachers and students to work collaboratively in teams, to set high expectations for student performance, to have a clear focus on desired outcomes of instruction, to provide the task completion time needed for tasks according to the needs of each student, and to use different teaching strategies until outcomes are obtained (Burns & Wood, 1989; Murphy, 1984; Nyland, 1991; Rubin & Spady, 1984; Spady, 1991). During delivery of instruction, needs of special populations are considered and teaching is adjusted to accommodate learning rates of each student. This adjustment of delivery is one of the keys to success of outcome based programs (Murphy, 1984).

Demonstrate

The sixth step in OBE is "Demonstration". Students manifest

mastery of outcomes through well-planned, authentic, culminating demonstrations designed in step three (Barnes, 1992; Barnes, 1993). In traditional education, demonstrations at the end of a program, course, or at the end of high school, have utilized normal referenced tests. These tests do not assess students against a predetermined, publicly known criteria. Instead, they sort students into high, middle and low groups. In order to do this, the tests must have items all students pass and items all students fail. If a teacher teachers the items on the test, the students will answer too many items. As a result, the distribution of test scores will not follow the normal bell curve. New tests will be constructed using items only a few will pass in order to sort students. In contrast, criterion referenced tests measure student learning against specific skills which are made public. OBE encourages the use of this type of test. The specific skills on criterion referenced tests correspond to the exit, course, program, and unit outcomes selected by the school district.

Document

The seventh step in this model for implementing OBE is "Document". In this step, student performance is documented. Portfolios of students' work are used to document students mastery of outcomes. Portfolios are comprised of a selection of documents or media that are representative of the students' best work. Portfolios may include video tapes of oral presentations or creative videos, photographs of thematic projects, comprehensive papers original stories, and other evidence of quality performance.

Determine

In this step, educators determine whether outcomes have been mastered on the basis of student demonstrations. Students who demonstrate mastery quickly may advance to the next outcome or engage in enrichment activities. Children who are slower to master outcomes may require corrective instruction that is different from the original method of instruction. This "corrective instruction" takes place in the classroom, and may be provided by peer tutoring, individual instruction by the regular or special education teacher, or computer assisted instruction. Students may also be given alternate demonstration assignments if they have special needs identified on an individualized educational program. Because extensions and enrichments are used in every class, the regular class is able to provide for exceptional students (Abrams, 1985).

Application of Outcome Based Education To Special Populations

Outcome based education has application for children and youth with disabilities who qualify for special education. Outcome based education applies to special education in two principal ways. First, the premises and principles of OBE are shared by special education, therefore, OBE is familiar territory to special educators. Second, implementation of OBE facilitates mainstreaming reform movements by incorporating the same strategies advocated by reform champions.

The extensive work of William Spady and his colleagues elucidates the premises of OBE (Jones and Spady, 1985; Spady, 1977; 1981; 1982; 1986; 1988; 1991; 1992; Spady and Marshall, 1991; 1992). The first premise of OBE is that all students can learn

(Spady & Marshall, 1992). Special educators have always believed all students can learn, even those with severe disabilities. The zero reject principle in IDEA mandates that all children be provided a free, appropriate public education. In special education, all means all, such that no child may be rejected by the local or state education agencies.

Special education literature has examined Spady and Marshall's (1991) second premise that success breeds success. Behaviorists explain this phenomenon in terms of antecedents, behavior, and consequences. Individuals respond to stimuli, such as teacher instructions. If they receive positive consequences for their behavior, they will repeat the behaviors that preceded those positive consequences. "Many kinds of positive reinforcers can be used to encourage students to repeat desired behaviors, including knowledge of results (Wood, 1989, p 184). Positive feedback to students regarding their successful completion of assignments therefore act to increase successful completion of assignments in the future.

The third OBE premise is that schools control the conditions for success (Spady & Marshall 1991). Special educators believe they control these conditions and receive pre-service and in-service training aimed at developing skills in employing the principle of partial participation to allow students with severe disabilities to participate in age-appropriate activities, considering antecedents and methods of manipulating those antecedents to increase success, as well as making adaptations in the environment which enhance students' participation in the least

restrictive environment (Snell, 1987).

The four OBE principles identified by Spady & Marshall (1991) are clarity of focus, expanded opportunity, high expectations, and design down from exit outcomes. Each of these principles has received attention in special education literature. The individualized education program (IEP) is developed to clarify the focus of the special education student's program. In addition, special educators must always know long-range goals, which clearly identify where the child is, where he should be going, how he will get there, and how long it will take (Bierly, 1978). Special educators have also given expanded opportunities to students as needed, following the second principle of OBE. For some students, expanded opportunities consist of additional time, while for others, skills may need to be retaught using a modification of the program.

The OBE principle of high expectations has received much attention in special education literature. Special educators have been concerned about the relationship between labeling and expectations, and their effects on student performance. Rosenthal and Jacobson (1968) discovered an effect known as the self-fulfilling prophecy, in which children become what they are labeled. Later research suggested that teacher expectations were retained despite the presence of behaviors inconsistent with the labels (Aloia & MacMillian, 1983; Rosenhan, 1973; Yesseldyke & Foster, 1978).

The final principle of OBE identified by Spady (1992) is the principle of design down from exit outcomes. This principle is

known as the "top down" principle in special education literature (Brown, Branston, Hamre-Nietupski, Pumpian, Certo, & Gruenewald, 1979; Vincent, Salisbury, Walter, Brown, Gruenewald & Powers, 1980). According to Brown and his colleagues, the student's future environments should be surveyed to identify needed skills. This practice differs from the developmental approach which starts with skills normally performed by infants and proceeds to those considered more advanced. This "bottom-up" approach often resulted in an preschool-level curriculum for eighteen year old students with severe disabilities. In contrast, the "top-down" approach clearly focuses on the skills needed in adulthood and preparing students for the transition from school to work is an integral component of each student's individualized education program (Steer, Wood, Panscofor, & Butterworth, 1990).

The second primary application of OBE to special education students is that OBE facilitates the placement of students with disabilities into the least restrictive environment. Two reform movements in special education involve placement of students in the mainstream rather than special education classrooms. These reform movements are the Regular Education Initiative and Full Inclusion.

The Regular Education Initiative (REI) is a movement which calls for merging the dual systems of special education and regular education into a single system (Reynolds, Wang, & Walberg, 1987; Stainback & Stainback, 1984; Will, 1986). Full Inclusion also proposes mainstreaming, but differs from REI in that its advocates believe all students, even those with severe disabilities, should be educated in regular classes, with special aids, service, and

consultation to the regular educator. OBE can facilitate both REI and Full Inclusion because it encourages strategies identical to those encouraged by advocates of these movements. These strategies include cooperative learning and collaborative teaching.

Cooperative learning is "a method for organizing learning, in which students are working with their peers toward a shared academic goal rather than competing against or working separately from their peers (Salend, 1990, p 251). Cooperative learning can be very effective in promoting academic skills of all students, and in encouraging understanding of students with different abilities (Johnson & Johnson, 1986; Slavin, Maden & Leavey, 1984; Wood, 1989).

Collaboration between regular and special educators is another strategy advocated by the OBE reform movement and special education reform movements. (Cook & Friend, 1991; Huefner, 1988; Idol, Paolucci-Whitcom & Nevin, 1986; Jenkins, Pious & Peterson, 1988; Lanier, 1980; Lieberman, 1986; McGill & Robinson, 1989). Idol, Paolucci-Whitcomb & Nevin (1986) define consultation as "an interactive process that enables people with diverse expertise to generate creative solutions to mutually defined problems"(p. 1). Another variation on collaboration is co-teaching. Co-teaching is a good vehicle for implementing OBE and mainstreaming because it provides two teachers in the same classroom as lessons are delivered. With two teachers, one is able to re-teach students who need it while the other teacher provides enrichment. Co-teaching also allows one teacher to model a new skill while the other explains it, or both teachers to role play a situation for students

(Friend & Cook, 1992). Co-teaching is a true team approach in which all adults are involved with the child, and each teacher has ownership of the students (Friend & Cook, 1992).

Conclusion

Outcome based education provides a means for profound reform in public education. In addition to a vision of a new future in education and a willingness to shift to a new paradigm which focuses on outcomes, educators need a plan for reform. These steps offer such a plan. As these eight steps of OBE are implemented in classrooms across the country, all students will begin to succeed.

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Table 1

Outcome Based Education Tenants Compared to Traditional Education Tenants

Traditional Based Education	Outcome Based Education
1. Only a few are bright	All can learn
2. Exclusion	Inclusion
3. Sorts and Classifies	Educates all
4. Knowledge level learning	Application level learning
5. Order and control	Empowerment of students
6. One best practice	Variety of methods
7. Grade & subject boundaries	No boundaries
8. Rigid/Closed	Open/Flexible
9. Sequential/Discrete	Integrated Curriculum
10. Normative Testing	Real-life demonstrations
11. Tests kept secret	Tests make public
12. Unknown purpose of tasks	Intent is explained
13. Indirect	Direct
14. Teaches "about"	Teaches to do and apply